UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,487	08/27/2003	Jonathan J. Oliver	PA3628US	6147

22830 7590 01/25/2007	EXAMINER
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PALO ALTO, CA 94303	ART UNIT	PAPER NUMBER
	2137	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/650,487	OLIVER ET AL.
	Examiner	Art Unit	
	Minh Dieu Nguyen	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 November 2006</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-31</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-31</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>06 November 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>11/6/06</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Response to Amendment

1.   This office action is in response to the communication dated November 6, 2006

with the amendments to claims 1-31.

2.   Claims 1-31 are pending.

Response to Arguments

3.   Applicant's arguments with respect to claims 1-31 have been considered but are

moot in view of the new ground(s) of rejection.

Information Disclosure Statement

4.   The information disclosure statement filed November 6, 2006 has been placed in

the application file and the information referred to therein has been considered as to the

merits.

Claim Rejections - 35 USC § 101

5.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6.   Claims 30-31 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter. Claims 30-31 do not fall within one of the four

statutory classes of an invention (method/process, article of manufacture, a composition

of matter, or machine). The specification defines "a computer readable medium such as a computer readable storage medium or a computer network wherein program instructions are sent over optical or electronic communication links" (page 4, lines 2-5), therefore the recited "a computer readable medium" can direct to an information signal. An information signal is not a series of steps, it is a form of energy and not a composition of matter, it does not have any physical structure and does not itself perform any useful, concrete and tangible result. It is suggested that the claim language may be amended to specifically recite "A computer readable storage medium" or the specification is amended to exclude "a computer network wherein program instructions are sent over optical or electronic communication links".

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 1-12, 14-19, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chasin (2005/0015626) in view of Andrews et al. (2003/0204569).

a)   As to claims 1, 28 and 30, Chasin discloses a method for improving a statistical message classifier, comprising: testing a message with a machine classifier, wherein the machine classifier is capable of making a classification on the message (see Chasin: 0032); the statistical message classifier is configured to detect an

unsolicited message (see Chasin: 0032-0033) and comprises a knowledge base that

tracks the spam probability of features in classified message (i.e. statistical classifiers

determine and access the probability that a new e-mail message with identified tokens

is spam or not spam, see Chasin: 0037, 0045, 0049). However Chasin is silent on the

capability of having in the event the machine classifier makes the classification,

updating the statistical message classifier according to the classification made by the

machine classifier. Andrews is relied on for the teaching of having in the event the

machine classifier makes the classification, updating the statistical message classifier

according to the classification made by the machine classifier (i.e. statistical message

classifier uses characteristic keywords and/or words associations to detect spam e-

mails and these information are saved in a special folder to be used as a training

database to update statistical classifier, see Andrews: 0040, 0048-0049 and 0069). It

would have been obvious to one of ordinary skill in the art at the time of the invention to

employ the use of in the event the machine classifier makes the classification, updating

the statistical message classifier according to the classification made by the machine

classifier in the system of Chasin, as Andrews discloses, so as to update the statistical

classifiers for improving classifying and identifying spam (see Chasin: 0034).

      b)   As to claim 2, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein the machine

classifier is further capable of making no classification on the message (i.e. to allow

unfiltered e-mails to pass to the e-mail server for later delivery to or picking up by the e-

mail recipient, see Chasin: 0031)

c)   As to claims 3, the combination of Chasin and Andrew discloses the method for improving a message classifier as recited in claim 1, wherein the machine classifier is a reliable classifier having a probability of erroneous classification of less than approximately one percent (i.e. confidence ratio used for classifying a message as spam or junk can be increased to a relatively high value, e.g. approaching 100 percent, see Chasin: paragraph 0011).

d)   As to claim 4, the combination of Chasin and Andrew discloses the method for improving a message classifier as recited in claim 1, wherein a probability of erroneous classification by the machine classifier is less than a probability of erroneous classification by the statistical message classifier (i.e. classifiers and statistical tools are utilized as additional filters for increasing the confidence factor for an e-mail message identified as potentially leading to spam or junk content, see Chasin: 0033).

e)   As to claim 5, the combination of Chasin and Andrew discloses the method for improving a message classifier as recited in claim 1, wherein the machine classifier includes a whitelist classifier (see Chasin: 0035).

f)   As to claim 6, the combination of Chasin and Andrew discloses the method for improving a message classifier as recited in claim 1, wherein the machine classifier includes a collaborative fingerprinting classifier (see Chasin: 0037).

g)   As to claim 7, the combination of Chasin and Andrew discloses the method for improving a message classifier as recited in claim 1, wherein the machine classifier includes an image analyzer (see Chasin: 0047).

h)   As to claim 8, the combination of Chasin and Andrew discloses the
method for improving a message classifier as recited in claim 1, wherein the machine
classifier includes a probe account (i.e. honeypots uses dummy email addresses or fake
recipients to attract spam, see Chasin: 0037).

i)   As to claim 9, the combination of Chasin and Andrew discloses the
method for improving a message classifier as recited in claim 1, wherein the machine
classifier includes a challenge-response classifier (see Chasin: 0037).

j)   As to claim 10, the combination of Chasin and Andrew discloses the
method for improving a message classifier as recited in claim 1, wherein updating the
statistical message classifier comprises updating a knowledge base used to train the
statistical message classifier (see Andrews: 0049).

k)   As to claim 11, the combination of Chasin and Andrew discloses the
method for improving a message classifier as recited in claim 1, wherein updating the
statistical message classifier comprises updating a statistical model used by the
statistical message classifier (see Andrews: 0048-0049).

l)   As to claim 12, the combination of Chasin and Andrew discloses the
method for improving a message classifier as recited in claim 1, wherein updating the
statistical message classifier comprises parsing the message to obtain a feature (see
Chasin: 0037).

m)   As to claim 14, the combination of Chasin and Andrew discloses the
method for improving a message classifier as recited in claim 1, wherein updating the

statistical message classifier comprises parsing the message to obtain a feature and

updating a training set (see Andrew: 0049).

n)   As to claim 15, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein updating the

statistical message classifier comprises parsing the message to obtain a feature and

computing a spam probability associated with the feature (see Chasin: 0037, 0049).

o)   As to claim 16, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein updating the

statistical message classifier comprises parsing the message to obtain a feature and

computing a score associated with the feature (see Chasin: 0036).

p)   As to claim 17, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein the message is

a previously stored message (i.e. e-mails released from quarantine, see Chasin: 0031).

q)   As to claim 18, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein the message is

an incoming message (see Chasin: 0031).

r)   As to claim 19, the combination of Chasin and Andrew discloses the

method for improving message classifier as recited in claim 1, in the event that the

message is not classifiable by the classifier, further comprising testing the message with

another machine classifier (i.e. filtered messages may be refused by the filter modules,

and other classifiers may be used as additional filters for identifying the messages, see

Chasin: 0032-0033).

9.   Claims 13, 20, 21-26, 29 and 31 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chasin (2005/0015626) in view of Andrews et al. (2003/0204569)

and further in view of Bandini (2002/0199095).

        a)   As to claims 20, 29 and 31, the majority of claim limitations in these claims

are in claim 1 and addressed by Chasin and Andrews, however the combination of

Chasin and Andrews is silent on the capability of having in the event that the message

is not classifiable by the first classifier, testing the message with a second classifier,

wherein the second classifier is capable of making a second classification. Bandini is

relied on for the teaching of having in the event that the message is not classifiable by

the first classifier, testing the message with a second classifier, wherein the second

classifier is capable of making a second classification (i.e. the e-mail relay is used to

filter email, email with score below the borderline level is a clean indication, those are

not classified in the clean category are further tested for spam indication or other

indication, see Bandini: 0019, 0021); in the event that the message is classifiable by the

second classifier, updating the statistical message classifier according to the second

classification (the combination of Chasin and Andrew discloses updating the statistical

message classifier according to the first classification, see addressed above claim 1,

this same concept can be implemented to update the statistical message classifier

according to the second classification). It would have been obvious to one of ordinary

skill in the art at the time of the invention to employ the use of in the event that the

message is not classifiable by the first classifier, testing the message with a second

classifier, wherein the second classifier is capable of making a second classification in

the system of Chasin and Andrews, as Bandini teaches, so as to reduces the number of SPAM messages users receive (see Bandini: 0003).

b)   As to claim 13, the combination of Chasin, Andrews and Bandini discloses the method for improving a message classifier as recited in claim 1, wherein updating the statistical message classifier comprises parsing the message to obtain a feature and updating a counter corresponding to the feature (see Bandini: 0039).

c)   As to claims 21-26, the combination of Chasin, Andrew and Bandini discloses the method for improving message classifier as recited in claim 20, wherein the first classifier is a reliable, reliable good classifier, reliable junk classifier and wherein the second classifier is a reliable, reliable good classifier, reliable junk classifier having a probability of erroneous classification of less than approximately one percent (i.e. confidence ratio used for classifying a message as spam or junk can be increased to a relatively high value, e.g. approaching 100 percent, see Chasin: paragraph 0011).

10.   Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chasin (2005/0015626) in view of Andrews et al. (2003/0204569) in view of Bandini et al. (2002/0199095) and further in view of Horvitz et al. (6,161,130).

The combination of Chasin, Andrews and Bandini discloses the method of claim 20, however it is silent on the capability of having the first classifier is a user-augmented classifier. Horvitz is relied on for the teaching of the first classifier is a user-augmented classifier (col. 9, lines 9-17). It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of the first classifier is a user-augmented

classifier in the system of Chasin, Andrews and Bandini, as Horvitz teaches, so as to

allow user making ultimate decision.

Conclusion

11.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the·date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

12.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Minh Dieu Nguyen whose telephone number is 571-272-

3873.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number

for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

mdn
1/19/07

EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER